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ABSTRACT

Institutional atmosphere forms the context of reasoning in an institution and defines the relationship between the individual and the organizational framework of the institution. The hierarchical complexity of the institutional dilemmas solved by people interacting in that institution defines the stages of reasoning embodied in the atmosphere. The stage of reasoning by individuals interacts with the stage of atmosphere particular to an institution. The contingencies embodied in atmosphere are the relationships between what a person does in a situation and what outcome occurs. These rules are sometimes called reinforcement contingencies when the outcome increases the likelihood of the behavior, and punishment contingencies when they reduce the likelihood of the behavior. Individual choice creates, and is created by, the contingencies and their settings within the social group. In this study the stage of statements from open ended interviews with key individuals (N=28) who teach or study ethics at Harvard University (Massachusettts) were assessed. Stage was assessed using the General Stage Scoring System, which in turn was based on the General Stage Model (Commons & Richards). Included in the interview were adaptations of Armon's Good Life Instrument, a dilemma constructed from an actual incident, and the Heinz dilemma (Colby & Kohlberg). Stage ranged from 4 to 5, suggesting that the institutional atmosphere of the university may not reinforce individual development to the highest stages but rather may tend to limit it at the systematic stage. (Author/ABL)

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Institutional Atmosphere, Individual Development, and the Higher Moral Stages

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Abstract

This paper presents a discussion of the relationship between institutional atmosphere and individual moral development. Institutional atmosphere, as defined here, forms the context of reasoning in an institution and defines the relationship between the individual and the organizational framework of the institution. The hierarchical complexity of the institutional dilemmas solved by people interacting in that institution defines the stages of reasoning embodied in the atmosphere. We believe that the stage of reasoning by *individuals* interacts with the stage of atmosphere particular to an *institution*. The interaction of individuals and institutional process reinforces specific types of reasoning, and may promulgate development to a specific stage. The contingencies embodied in atmosphere are the relationships between what a person does in a situation and what outcome occurs. These rules are called reinforcement contingencies when the outcome increases the likelihood of the behavior, and punishment contingencies when they reduce the likelihood of the behavior. Individual choice creates, and is created by, the contingencies and their settings within the social group.

We assessed stage of statements from open ended interviews with key individuals who teach or study ethics in a university. Stage was assessed using the General Stage Scoring System, which in turn was based on the General Stage Model (Commons & Richards, 1984a, b). Included in the interview were adaptations of Armon's (1984) Good Life instrument, a dilemma constructed from an actual incident, and the Heinz dilemma (Colby & Kohlberg, 1987). Stage ranged from 4 to 5, suggesting that the institutional atmosphere of the university may not reinforce individual development to the highest stages but rather may tend to limit it at the systematic stage.

Introduction

This paper presents a method for characterizing the relationship between individuals and the institutional environment with respect to individual moral development. We hypothesize that this is a dynamic, two-way relationship, and that correlations exist between individual development and the stage of development embodied in the workplace environment. We construe development in terms of the stage of hierarchical complexity of response. Using a scoring scheme derived from the General Stage Model (Commons and Richards, 1984a, 1984b), we score samples of individual responses to moral dilemmas within a university and compare the stage of individual response to the stage of response embodied in institutional decision making, both formal and informal. We are particularly interested in identifying the contingencies by which this relationship is governed and the reinforcement mechanisms through which they are enforced.

Atmosphere

Atmosphere, when applied to an institutional environment, refers to the dynamic and reciprocal relationship between individuals and the organization itself. On the one hand, atmosphere suggests the ways in which contingencies affect individual behavior within the institution, and the methods by which contingencies are set. A *contingency* is a relationship between events (i.e., behaviors or responses) and outcomes. Consequences that increase the likelihood of the event that they follow are termed *reinforcers*. Consequences that decrease the likelihood of the event that they follow are termed *punishers*. What the environment contributes to behavior may be described in terms of contingent relations among events. We maintain that the actions and their justification of individuals within any institution has significant bearing upon organizational atmosphere. As reasoning develops in complexity, individuals are increasingly capable of understanding the perspectives of others, and of evaluating and integrating competing perspectives. These skills are integrated into the formal and informal policy making and policy enforcement structures of the organization. Atmosphere, therefore, refers to the manner in which contingencies either constrain or motivate the development of individuals as well as to how individual behavior constrains or motivates organizational development.

General Stage Model

The General Stage Model (GSM) is a universal stage system that classifies development in terms of the task required hierarchical structure of response. Commons and Richards have suggested that developmental theory should address two conceptually different but related issues: (1) the hierarchical complexity of the task to be solved; and (2) the psychology, sociology and anthropology of how such task performance develops. Scoring by stage is related to the first issue because the GSM uses the hierarchical complexity of tasks as the basis for the definition of stage. The discussion of atmosphere and its contingencies relates to the second issue. The two are interrelated insofar as reinforcement contingencies determine stage of response. The GSM provides a means for identifying how contingencies are set and transferred within organizations. It therefore gives a measure of the sensitivity of individuals to the reinforcement contingencies that shape social systems and individual development.

To counter the possible objection of arbitrariness in the definition of stages, the GSM stages are grounded in the hierarchical-complexity stage criteria of mathematical models (Coombs, Dawes, &

Tversky, 1970) and information science (Commons & Richards, 1984a, 1984b; Lindsay & Norman, 1977; Rodriguez, 1989).

The GSM also posits that individuals perceive the world through conceptual frameworks. These frameworks embody the individual's cultural, educational, religious, political, and social background (as well as many other factors). Such a framework is referred to as one's perspective. Perspectives differ in terms of hierarchical complexity. As the hierarchical complexity of an individual's response to task demands increases (i.e., as stage of development goes up), the individual is increasingly able to take many such perspectives into account (Commons & Rodriguez, 1990; Rodriguez, 1989).

In adult development, and consequently in professional-level workplace interactions), three developmental stages predominate: formal operational (GSM stage 4b, Kohlberg 3/4), systematic (GSM stage 5a, Kohlberg 4), and metasystematic (GSM stage 5b, Kohlberg 5 and 6). Following are General Stage Model (GSM) descriptions of these stages.

Formal Operational Stage 4b: Stage 4b responses identify and isolate relations in complex sets of variables as well as to label interactions of events abstractly in a linear fashion. For example, in discourse at this stage, empirical statements of causality and analytic if-then propositions, predominate. Such formal-operational statements have the formal structure of an order relationship, "A > B," where A and B are both abstract-stage propositions (GSM stage 4a). In forming justifications, the logical arguments at this stage, usually have the form, "A ---> B". That is, the relationship between A and B is made explicit through a causal statement with evidence, a logical statement or by some other clear coordination (e.g. of equivalence, proportionality) of at least two propositions or abstract-stage elements. Logical arguments are used to convince people of the soundness of a deduction from premises. Causal arguments are used to convince people of an empirical relationship between events and outcomes. For an empirical example, "A--If you hope to get a good academic job, then B--you must publish a good deal." "A--Also, if you hope to get a good academic job, then C--you must apply before the advertized deadline." Authority in the form of local norms, rules, and regulations is given preeminence, while particular individuals or situations play only a minor role. Reasons and justifications relate to expected behavior, based on these bureaucratic rules, or norms.

Systematic Stage 5a: A stage 5a response is characterized by systematizing formal-operational relations into a network. Here, the products of the formal stage actions -- coordinated abstract-stage propositions -- become the elements to be coordinated. The product of the more hierarchically-complex stage 5a statement is the coordination of the relations constructed by formal operational actions into a system. A suitable systematic-stage action coordinates two or more relations, for example, System$_1$: "A ----> C and A ----> B." This system could be "If you have a large number of publications, some teaching experience, a coherent research program then you might get a good academic job. This constitutes a single, unified system, which the subject takes to be comprehensive. For example, social interactions are seen as an integrated system of relationships. Yet the importance of the individuals is determined with respect to their relation to and/or role in the system. Norms, laws, rights, duties, rules, and regulations form a logically coherent system;

reasoning centers around how action would impact one's individual role and status within the system and the functioning of the institution.

Metasystematic Stage 5b: A stage 5b statement coordinates and transforms two or more systems according to a principle that is external to both systems. Such metasystematic principles take precedence over the concerns of any particular system. The concern is never to preserve a system or institution for its own sake. Rather, the needs and interests of a number of systems are taken into account without regard to the particular system or institution within which one finds oneself. Systems are compared and contrasted in terms of their properties. The focus is on the similarities and differences in each system's form as well as constituent causal relations and persons within it. At stage 5b, perspective-taking skills are well-developed. A wide range of perspectives can be taken into account and coordinated in a non-arbitrary manner. For example, a metasystematic stage 5b statement might have the form, "A merit system, [S_1] --in which having a large number of publications, some teaching experience, a coherent research program lead to a good academic job"--can be transformed into a discriminatory system, if "minority students are unable to work with faculty who have grants." The discriminatory system [S_2] entails that "Students who work with faculty who do not have grants have a lower likelihood of publishing and forming a coherent research program than students who work with funded faculty;" and "Minorities are less likely than non-minorities to have an equal opportunity to work with faculty who have grants." By adding these last two formal operational conditions, the system of merit [S_1] is transformed into a discriminatory system [S_2], written as $T_1(S_1)$--> (S_2). In system [S_2] past discrimination influences one of the merit criteria. Likewise, a merit system is transformed into a merit system with politics if active support from an influential person is required, $T_2(S_1)$--> (S_3). Additional supersystems may be built by integrating other such transformations.

Method

In a study conducted at Harvard University, we presented individual subjects with a series of moral dilemmas, and scored their responses using the General Stage Scoring System. We compared these stage scores with a stage assessment of the institutional policy making procedures of the university itself. Twenty-eight subjects were interviewed including students, faculty members and administrators. All Harvard subjects were working, teaching or studying in the field of ethics. Four subjects were women, and two were African-American.

The interview instrument consists of a series of open-ended questions and two dilemmas. The format is similar to those used by Armon (1984a, 1984b) in the Good Life Interview and by Perry (1968). The first section of the interview centers around the following questions: (1) What is a good university? (2) What is a good government? and (3) What is a good government for a university? The second section consists of a dilemma involving a conflict between students and administration on the issue of free speech, and is followed by the standard Heinz Dilemma (Colby & Kohlberg, 1987; Kohlberg, 1969, 1984). Subjects were probed for responses in the domains of justice, epistemology, attachment, and the good. Interviews were conducted in person and recorded on audiotape for later transcription.

Applying the General Stage Model

The General Stage Scoring System, derived from the General Stage Model, is used to determine the stage of subject response to a given task demand. Two types of scoring are used to determine stage: 1) signal-detection scoring; and 2) dialectical scoring. Signal-detection scoring determines the stage of the basic elements that individuals coordinate in a given statement, or response. As previously mentioned, the notion of hierarchical complexity given by the General Stage Model entails that every response consists of a series of increasingly complex coordinations. The lowest order of complexity is given by the primary elements of the statement (for our subjects, these typically occur at the level of abstract concepts, stage 4a, or at the level of beginning formal operations). Although the presence of lower stage elements is always implicit in higher stage statements, they are seldom made explicit. The task of signal-detection scoring, then, is to identify all of the lower stage primary elements that are successfully used, and to assign stage scores to each of them.

Once the lower stage primary elements within a response have been identified and staged, dialectical scoring can begin. Dialectical scoring determines the hierarchical complexity of the statement. Hierarchical complexity refers to the number of recursions that the coordinating actions perform on the primary elements. The coordinating actions at a given order of hierarchical complexity are defined in terms of the actions at the next lower order of hierarchical complexity. Actions at the higher order of complexity transform and organize lower order actions. This organization of lower order actions is new and unique and cannot be accomplished by lower order actions alone.

The stage of response is constrained both by the atmosphere in which the individual is operating, and by the subject's aptitude in forming coordinations. For example, an attorney may construct higher stage statements in addressing a judge's inquiry on legal principles than when speaking with her child at home. Lower stage responses, which are appropriate to the conversation with her young child, would probably not be reinforced in the courtroom, where a lower stage argument would be unlikely to win her case. Conversely, higher stage responses, appropriate for the judge, may not be reinforced by her child. Because the child cannot coordinate elements at the higher level, higher stage arguments won't be persuasive to her. Consequently, the child's behavior will not be affected by the attorney's argument as desired. So the use of higher stage arguments with the child won't be reinforcing for the attorney. As performance varies in response to reinforcement, and to changes in task demands, subjects will construct statements at different stages. Stage scores should not be interpreted simply as indicators of fixed structures internal to the subject.

In adult development, however, and consequently in interactions within the university, three developmental stages do predominate: formal operational (GSM stage 4b, Kohlberg 3/4), systematic (GSM stage 5a, Kohlberg 4), and metasystematic (GSM stage 5b, Kohlberg 5 and 6).

Examples

The following examples are samples of the responses we obtained. They suggest correlations between the stage of individual responses and the stage of organizational atmosphere. Example 1 is taken from a parallel study conducted at the Medical School at Universidad Autonóma de Baja California in Mexicali, México (Galaz-

Fontes 1989; Galaz-Fontes, Pacheco-Sanchez, & Commons, 1989). Like snapshots, these examples "freeze" subject response at a particular point in the performance of a task. This allows for closer scrutiny of the structure of the response, although it does not do justice to the dynamism of the typical subject performance in responding across a variety of tasks.

Example 1 (4b)
Subject: *The main office, the faculty of the dean, has a door by which all of the faculty enters, and beside the door there is a little window, and it says, "Students are attended here." I think that is significant. That way of dealing with students is telling them, "You are outside, you are a student. Your right is to knock on the window and tell us what your problem is and we will solve it for you. And don't get too close, you might be contagious." What has happened within the Medical School is that there is a lot of non-interest of the faculty in terms of the school. They are just interested in giving their classes, fulfilling the minimum requirements, but are not interested in discussing things more deeply.... [There is] no enthusiasm for the institution. People just stay there and keep working. Like, for example, the recently approved new curriculum. It was centrally done. They invited professors to participate, but they did not participate in the discussion. So, for example, it is like a passive attitude. "This is the new curriculum, what do you think?" But they [the administration] did not want to really know.... A lot of professors are interested in improving things but more on a personal level than in terms of the program, or in terms of the institution.*

In this example, the subject describes an institutional atmosphere in which there is a history of administration appearing to ask questions of the faculty, but punishing or at least not reinforcing responses. Decisions such as curriculum development are "centrally done." The authority that carries this out also solves students' problems for them. Authority is construed in terms of linear chains of causality, where the administration makes decisions without input from other sources. No participatory network is present. Even the personal problems of students are solved by appeal to this logical chain of authority, rather than through a higher stage dialogical process in which the students themselves take part. Because central authority dominates so thoroughly, invitations to participate in the decision making processes go unheeded. Input, generated through past attempts, was ignored. Consequently, professors "are interested in improving things ... more on a personal level than in terms of the program or in terms of the institution." This exemplifies stage 4b reasoning, where the subject is unable to integrate individual interests with the systematic interests of a larger whole.

Example 2 (5a transition to 5b)
Subject: *If the university says this to the student [that students should always lend their support to university goals], why would this be bad, you were saying? Why should we? The question is what is the argument for all rallying behind anyone within an institution. It denies the sense of social responsibility if we're always to rally around institutions; it makes us not critics, but ralliers, followers, enthusiasts. For what? For the university, that abstraction? Why should I rally around it...? I'll rally around it insofar as it represents things that I think important. And one of the things that I think important is the students saying this would be, that it would stimulate independent and critical thought, and doesn't try to rally around a notion except in the notion in those*

who want to rally around this flag and without threatening those who don't in some official way.

This is a good example of an individual in transition from stage 5a to stage 5b, who is struggling against the stage 5a expectations of the institutional atmosphere. The university's injunction to students to rally around the institution typifies a stage 5a "conventional" response in which a single, unified system predominates. Individuals are identified strictly in terms of their place in the system. Deviations may be punished or at best ignored. This tends to place a ceiling on individual development, which the subject identifies by saying "it makes us not critics, but ralliers, followers, enthusiasts." The subject, however, sees beyond the single system of the institution. The subject, that is, identifies an alternative system, which is characterized by "independent and critical thought," where individuals are not defined strictly in terms of their position within a single system. The subject also discusses the presence of reinforcement contingencies in terms of "threatening those who don't [support the university goals] in some official way." So the subject has identified one system which represents the institution, and a second possible, alternative system. This places the response at least at the systematic stage 5a. But because the subject has not yet articulated a relation between these two systems, the response doesn't reach to metasystematic stage 5b, but is classified as transitional from stage 5a to stage 5b.

Example 3 (5b)
Interviewer: *What is a good government for the University?*
Subject: *I don't think of a University as having a government. It's more like a company. It's not like a state. In this case it's a business....*
Interviewer: *How should it run itself then? As a business?*
Subject: *As a modern business which would be pretty much participatory, and people that work in the business, etc. etc. I mean a business today has lots of stakeholders, and serves a lot of people so ... like in the lumbering business you have to consider your employees, your clients, your suppliers, the ecology of the land you work on, etc. etc. etc. The communities you work in, all these sort of things. These are all stakeholders in the organization as well as your stockholders. The problem with businesses in this country is we have a rather myopic view, in the sense that businesses are too beholden to their stockholders, and they're too much involved in their quarterly profits. Take companies, countries which do most of their equity raising through, uh banks, like Japan, they take a much longer term perspective because their banks ... you know, they have lifetime employees and banks with a long term perspective, they serve their community in a different kind of way. And there's a balance of constituencies here...*

In this example, the subject describes a metasystematic ideal for the institution and identifies ways in which lower stage institutions fall short of this ideal. The subject compares a Japanese model of business management to the American model and implicitly equates this with the university. A key feature of the metasystematic business is that it is participatory in the sense that it considers the interests of employees, clients, suppliers, the environment and the stockholders. The subject considers each of these groups as a system in itself and sees company policy as a synthesis of these systems in terms of "a long term perspective." Such a perspective, the subject suggests, can not arise without "a

balance of constituencies." To the extent that the subject calls for respect for the all of the institution's "stakeholders," and an integration of their perspectives, the subject constructs a metasystematic stage response, consistent with what Kohlberg has called, "postconventional." The subject constrasts this ideal with the "myopic" view of an institution that cannot see beyond the limits of a single system. In his case, the single dominant system is that determined by the stockholders and entrenched at the systematic stage.

Development and propagation of atmosphere

The atmosphere of the institution is sustained and transferred through communication networks. These networks distribute information about the contingencies that affect individuals (for example, individual advancement) within the organization. The atmosphere largely controls the reinforcement contingencies that impact individuals within the institution. We suspect that the hierarchical complexity of these contingencies affects the complexity of individual choice making within the organization. There are multiple layers of contingencies for individual responses within any institution. Stage assignments, however, can be made for the overall network of contingencies and responses that constitute the atmosphere of the institution, in light of the complexity of reasoning used to justify these patterns.

We maintain that the atmosphere can either assist in the developmental process or impede it. By reinforcing higher stage responses, institutions serve their own interests as well as those of their constituents. As the hierarchical complexity of an individual's response to task demands increases (i.e., as stage of development goes up), individuals are increasingly able to take a range of different perspectives into account when making choices (Commons & Rodriguez, 1990; Rodriguez, 1989), including the perspective of the institution itself.

Conclusions

Preliminary findings suggest a predominance of systematic stage responses in the university. Additionally, subject responses indicate the presence of contingencies in the university atmosphere which reinforce systematic reasoning but not metasystematic reasoning. We suspect that in less politically charged arenas many of the same subjects reasoned at the fully metasystematic Stage 5b. This suggests that behavior beyond the systematic stage is reinforced in some domains and not in others. For instance, in the university, one's postconventional (metasystematic) thinking in one's research might be reinforced, but not one's postconventional thinking with regard to policy decisions involving the university itself. This theme was clearly brought out in many of the interviews.

Metasystematic reasoning typically challenges the existing norms and policies of the university by integrating interests which fall outside of its single system identity. For this reason, the university atmosphere tends not to reinforce individual reasoning at the metasystematic level. The metasystematic organization of variables, however, permits individuals within the university to identify themselves and others in terms not confined to their institutional roles or their status within the system. Various interests are respected and fully represented in the metasystematic decision making process, insofar as each one is regarded as a system to be coordinated.

The institutional atmosphere which does not reinforce higher stage responses may in fact be counterproductive. We contend that the failure of systematic stage problem solving to satisfy the demands of a wide range of institutional constituents and of the larger society may raise problems for educational institutions, as well as for society at large. Schools which are unable to progress beyond the systematic stage, for example, will have difficulty in responding to the needs of students from different racial, cultural and economic backgrounds. Similarly, individuals whose development has been stalled at the formal operational or systematic stage by the pressures of the institutional atmosphere in which they have been educated will have trouble interacting in the growing multicultural environment of American society.

Contemporary challenges, we believe, increasingly call for postconventional responses on the part of both individuals and institutions. In particular, groups such as women and minorities, whose interests have traditionally been under-represented in the decision making processes of educational institutions, would profit from metasystematic advances on the part of those institutions. In general, an atmosphere that reinforces members for problem solving at the higher stages increases their perspective taking abilities. Teachers who are reinforced for higher stage responses by the school administration will be better equipped to reinforce their students for higher stage responses. By reinforcing higher stage responses, teachers can promote the moral development of their students.

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